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NEWS 11 FEB 02 Simultaneous left and right truncation (SLART) added for CERAB, COMPUAB, ELCOM, and SOLIDSTATE
NEWS 12 FEB 02 GENBANK enhanced with SET PLURALS and SET SPELLING
NEWS 13 FEB 06 Patent sequence location (PSL) data added to USGENE
NEWS 14 FEB 10 COMPENDEX reloaded and enhanced
NEWS 15 FEB 11 WTEXTILES reloaded and enhanced
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NEWS 19 FEB 23 MEDLINE now offers more precise author group fields and 2009 MeSH terms

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NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3, AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

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NEWS LOGIN Welcome Banner and News Items
NEWS IPC8 For general information regarding STN implementation of IPC 8

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FILE 'HOME' ENTERED AT 15:07:21 ON 05 MAR 2009

=> file caplus

COST IN U.S. DOLLARS	ENTRY	SINCE FILE SESSION	TOTAL
FULL ESTIMATED COST		0.22	0.22

FILE 'CAPLUS' ENTERED AT 15:07:45 ON 05 MAR 2009

FILE COVERS 1907 - 5 Mar 2009 VOL 150 ISS 10
FILE LAST UPDATED: 4 Mar 2009 (20090304/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s plant and vacuole and antibody
      933388 PLANT
      505239 PLANTS
     1140032 PLANT
             (PLANT OR PLANTS)
       11455 VACUOLE
       12063 VACUOLES
       19411 VACUOLE
             (VACUOLE OR VACUOLES)
      343948 ANTIBODY
      414868 ANTIBODIES
      548006 ANTIBODY
             (ANTIBODY OR ANTIBODIES)
L1       231 PLANT AND VACUOLE AND ANTIBODY

=> s L1 and signal peptide or signal sequence
      643761 SIGNAL
      201994 SIGNALS
      769277 SIGNAL
             (SIGNAL OR SIGNALS)
      412087 PEPTIDE
      300731 PEPTIDES
      526291 PEPTIDE
             (PEPTIDE OR PEPTIDES)
       19408 SIGNAL PEPTIDE
             (SIGNAL(W)PEPTIDE)
      643761 SIGNAL
      201994 SIGNALS
      769277 SIGNAL
             (SIGNAL OR SIGNALS)
      835472 SEQUENCE
      580351 SEQUENCES
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      981636 SEQUENCE
             (SEQUENCE OR SEQUENCES)
       11511 SIGNAL SEQUENCE
             (SIGNAL(W)SEQUENCE)
L2       11530 L1 AND SIGNAL PEPTIDE OR SIGNAL SEQUENCE

=> s L1 AND ((SIGNAL PEPTIDE) OR (SIGNAL SEQUENCE))
      643761 SIGNAL
      201994 SIGNALS
      769277 SIGNAL
             (SIGNAL OR SIGNALS)
      412087 PEPTIDE
      300731 PEPTIDES
      526291 PEPTIDE
             (PEPTIDE OR PEPTIDES)
       19408 SIGNAL PEPTIDE
             (SIGNAL(W)PEPTIDE)
      643761 SIGNAL
      201994 SIGNALS
      769277 SIGNAL
             (SIGNAL OR SIGNALS)
      835472 SEQUENCE
      580351 SEQUENCES
      981636 SEQUENCE
             (SEQUENCE OR SEQUENCES)
       11511 SIGNAL SEQUENCE
             (SIGNAL(W)SEQUENCE)
L3         31 L1 AND ((SIGNAL PEPTIDE) OR (SIGNAL SEQUENCE))

=> s L3 and (vacuole and target?)
       11455 VACUOLE
       12063 VACUOLES
       19411 VACUOLE
             (VACUOLE OR VACUOLES)
      644545 TARGET?
L4         22 L3 AND (VACUOLE AND TARGET?)

=> duplicate remove L4
PROCESSING COMPLETED FOR L4
L5         22 DUPLICATE REMOVE L4 (0 DUPLICATES REMOVED)

=> d L5 bib abs 1-22

L5   ANSWER 1 OF 22  CAPLUS  COPYRIGHT 2009 ACS on STN
AN   2008:1427896  CAPLUS
DN   149:549741
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TI Polypeptides (enzymes, antigens, binding proteins, structural proteins) from environmental samples, their sequences, nucleic acids-encoding them, motifs, recombinant production and uses in industrial and pharmaceutical processes

IN Chang, Cathy; Mathur, Eric J.; Cayouette, Michelle; Robertson, Dan E.; Hugenholtz, Philip; Warnecke, Falk; Leadbetter, Jared; Ivanova, Natalia; Luginbuhl, Peter; Hutchison, Don

PA Verenium Corporation, USA; The Regents of the University of California; California Institute of Technology

SO PCT Int. Appl., 701pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008143679	A2	20081127	WO 2007-US70284	20070601

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRAI US 2006-810483P P 20060601

AB The invention provides isolated, synthetic or recombinant nucleic acid mols. obtained from environmental samples encoding polypeptides, such as enzymes, antigens, binding proteins and/or structural proteins, and vectors contg. said nucleic acid mols. used to transform cells for recombinant prodn. of said proteins. The invention also discloses 108,699 sequences for these nucleic acid mols. and polypeptides obtained from environmental samples, and provides the signal peptide sequences of the polypeptides within the patent. The invention relates that said recombinant nucleic acid mols. may encode polypeptides contg. signal peptides and/or heterologous domains, such as carbohydrate-binding, dockerin or catalytic domains. The invention also relates that the identities of said proteins were detd. using a sequence comparison algorithm (BLAST version 2.2.2) or by visual inspection. The invention further provides nucleic acid probes and primers specific for said nucleic acid mols. which can be used in identifying and amplifying said mols. Still further, the invention provides isolated, synthetic or

recombinant polypeptides encoded by said nucleic acid mols., and use of said polypeptides in industrial and pharmaceutical processes, including their use in food and feed processing, and in nutritional and pharmaceutical applications. Finally, the invention provides for the use of said nucleic acid mols. and/or polypeptides in the prodn. of bioethanol, biomethanol, biopropanol, biobutanol or biodiesel, and/or their use in processing a biomass material.

L5 ANSWER 2 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2008:1338738 CAPLUS
DN 149:526766
TI Characterization of hemipteran and coleopteran active TIC807 .delta. endotoxin from Bacillus thuringiensis strain EG2934
IN Baum, James; Penn, Stephen R.; Flasinski, Stanislaw; Shi, Xiaohong; Heck, Gregory R.; Rao, Sukuru Uma
PA Monsanto Technology LLC, USA
SO PCT Int. Appl., 125pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2008134072	A2	20081106	WO 2008-US5542	20080425
WO 2008134072	A3	20090122		

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

US 20080295207	A1	20081127	US 2008-109122	20080424
PRAI US 2007-914364P	P	20070427		
US 2008-109122	A	20080424		

AB The present invention relates to the characterization of hemipteran and coleoteran active TIC807 .delta. endotoxin from Bacillus thuringiensis strain EG2934. Growth of Lygus insects is significantly inhibited by providing the said crystal protein in Lygus diet. Polynucleotides encoding the crystal protein, transgenic plants and microorganisms that contain the polynucleotides, isolated peptides derived

from the crystal protein, and antibodies directed against the crystal protein are also provided. Methods of using the crystal protein and polynucleotides encoding the crystal protein to control Hemipteran insects are also disclosed. Escherichia coli strain SIC8088 harboring vector pIC17040 comprising a gene encoding and insecticidal fragment of TIC807 .delta. endotoxin was deposited on March 16, 2007 with the Agricultural Research Culture Collection, Northern Regional Research Lab. (NRRL) and having Accession No.NRRLB-50030.

L5 ANSWER 3 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2008:1431600 CAPLUS
DN 150:1546
TI Characterization of hemipteran and coleopteran active TIC807 .delta. endotoxin from Bacillus thuringiensis strain EG2934
IN Baum, James A.; Flasinski, Stanislaw; Heck, Gregory R.; Penn, Stephen R.; Sukuru, Uma Rao; Shi, Xiaohong
PA Monsanto Technology LLC, USA
SO U.S. Pat. Appl. Publ., 90pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 20080295207	A1	20081127	US 2008-109122	20080424
WO 2008134072	A2	20081106	WO 2008-US5542	20080425
WO 2008134072	A3	20090122		

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRAI US 2007-914364P P 20070427
US 2008-109122 A 20080424
AB The present invention relates to the characterization of hemipteran and coleoteran active TIC807 .delta. endotoxin from Bacillus thuringiensis strain EG2934. Growth of Lygus insects is significantly inhibited by providing the said crystal protein in Lygus diet. Polynucleotides encoding the crystal protein, transgenic plants and

microorganisms that contain the polynucleotides, isolated peptides derived from the crystal protein, and antibodies directed against the crystal protein are also provided. Methods of using the crystal protein and polynucleotides encoding the crystal protein to control Hemipteran insects are also disclosed. Escherichia coli strain SIC8088 harboring vector pIC17040 comprising a gene encoding and insecticidal fragment of TIC807 .delta. endotoxin was deposited on March 16, 2007 with the Agricultural Research Culture Collection, Northern Regional Research Lab. (NRRL) and having Accession No.NRRLB-50030.

L5 ANSWER 4 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2008:578435 CAPLUS
DN 149:144774
TI Generation and analyses of the transgenic potatoes expressing heterologous thermostable .beta.-amylase
AU Lin, Kuan-Hung; Fu, Hongyong; Chan, Cheng-Han; Lo, Hsiao-Feng; Shih, Ming-Chih; Chang, You-Ming; Chen, Long-Fang O.
CS Graduate Institute of Biotechnology, Chinese Culture University, Taipei, 111, Taiwan
SO Plant Science (Shannon, Ireland) (2008), 174(6), 649-657
CODEN: PLSCE4; ISSN: 0168-9452
PB Elsevier Ireland Ltd.
DT Journal
LA English
AB .beta.-Amylase hydrolyzes the .alpha.-1,4-glycosidic linkages of starch resulting in the release of maltose. This reaction is of industrial importance for maltose prodn. and for the prepn. process of fermented foods and alc. beverages. A demand for an acceleration of the rate of enzymic cleavage of the starch macro-mol. is a prerequisite for large-scale and highly efficient prodn. Increasing the temp. up to the optimum of approx. 60 .degree.C can significantly speed up the reaction. However, at higher temps., the effect on protein denaturation becomes dominant, and the conversion rate decreases. The primary objective of this study was to generate transgenic plants of the "Kennebec" potato variety for prodn. of thermostable .beta.-amylase using Agrobacterium-mediated transformation. Four chimeric genes encoding the .beta.-amylase with or without signal peptide sequences for targeting expression in cytoplasm, amyloplasts, or vacuoles were constructed and driven by high tuber expression promoter from Sucrose synthetase gene Sus4. Forty-two transgenic lines were selected for this study. Transgenic lines with various .beta.-amylase constructs were verified for the existence and expression of the transgenes by PCR approaches. The expression level of the introduced .beta.-amylase protein was estd. by immunoblot analyses using polyclonal antibodies. Recombinant .beta.-amylase was successfully expressed in Escherichia coli B21 (DE3), and temp. ranges of

these inducible recombinant proteins were found to be between 40 and 90 .degree.C. This enzymic complex produced in the in vitro cultured microtubers and field-grown tubers from transgenic potatoes were proved to be stable and active at 60 .degree.C. The relative activities of .beta.-amylase in tubers of field-grown potatoes were compared, and the max. increase was found with transgenic line #6A of the pSUS4-AMY construct which has an 11-fold greater increase than the untransformed "Kennebec". Variations of the chem. compns. were found in the selected transgenic lines. Results of this study suggest the feasibility of utilizing thermostable .beta.-amylase in transgenic potatoes for the starch-processing industries.

RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2007:482951 CAPLUS

DN 146:477769

TI Preparation of human recombinant acetylcholine esterase variants in plant cells and application as apoptosis-regulatory agents

IN Soreq, Hermona; Toiber, Debra; Berson, Amit; Greenberg, David S.

PA Yissum Research Development Company of the Hebrew University of Jerusalem, Israel

SO PCT Int. Appl., 137pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2007049281	A1	20070503	WO 2006-IL1233	20061026

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRAI US 2005-730043P P 20051026

AB Two isoforms of human acetylcholine esterase (ACHE-R (readthrough isoform) and ACHE-S (synaptic isoform)) are generated by alternative splicing.

Recombinant ACHE-R with a N-terminal extension is produced and is intended to be used as a neuro-protecting agent. Recombinant ACHE-S with a N-terminal extension is produced and is intended to be used as a apoptotic agent. Nucleotide sequences of enzyme-encoding regions and N-terminal extensions for recombinant expression in host plant cells are claimed. The use of cis-regulatory promoter element (constitutive, inducible, developmentally-regulated or tissue-specific promoter) and signal sequence (ER-, cytosol-, plastid-, seed-, vacuole-targeting signals) in the nucleotide construction for recombinant enzyme expression. Up-regulation of ACHE-S and/or down-regulation of ACHE-R promotes cell death and up-regulation of ACHE-R and/or down-regulation of ACHE-S promotes cell survival. These pharmaceutical actions of the ACHEs in the apoptotic mechanisms are applied to the therapies of neurodegenerative disorders such as Alzheimer's, ALS, retinal disorder, diabetes and hyperproliferative disorders. An antibody only specific for ACHE-R not for ACHE-S is provided as a reagent for diagnosing apoptosis-related disorders and/or neurodegenerative disorders. The antibodies, antisense oligonucleotides, siRNAs, ribozymes and DNAzymes are claimed as the agent types to induce ACHE-down regulation.

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2006:632273 CAPLUS

DN 145:98382

TI Using vacuole targeting peptide to target heterologous proteins to vacuole in plant cells

IN Rae, Anne; Casu, Roseanne; Jackson, Mark; Grof, Christopher

PA Sugar Industry Innovation Pty. Ltd., Australia

SO PCT Int. Appl., 90 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2006066358	A1	20060629	WO 2005-AU1970	20051223

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

AU 2005318879 A1 20060629 AU 2005-318879 20051223
CA 2594053 A1 20060629 CA 2005-2594053 20051223
EP 1841784 A1 20071010 EP 2005-821481 20051223
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR

PRAI AU 2004-907342 A 20041224
WO 2005-AU1970 W 20051223

AB This invention relates to the use of a plant vacuole targeting sequence to target heterologous proteins to vacuoles in plant cells. The vacuole targeting element is the sequence module X1X2X3PX4, wherein X1 is a hydrophobic amino acid, X2 is a basic amino acid, X3 is a hydrophobic amino acid, P is proline; and X4 is a hydrophilic amino acid, such as the sequences IRLPS, IKLPS, LRLPS and LKLPS. The vacuole targeting sequence may be present in a chimeric protein linked to an amino acid sequence of a heterologous protein to facilitate vacuole vacuole targeting of the expressed chimeric protein in a plant cell. The invention is applicable to prodn. of expressed, chimeric proteins in monocots and dicots, and in particular monocots such as cereals and sugarcane.

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 7 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2006:366987 CAPLUS
DN 144:410934
TI Method for production of IgG1 and IgG4 antibodies in carrot cells for use in therapy
IN Shaaltiel, Yoseph; Hashmueli, Sharon; Bartfeld, Daniel; Baum, Gideon; Ratz, Tal; Mizrachi, Einat; Forester, Yehava
PA Protalix Ltd., Israel
SO PCT Int. Appl., 98 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2006040764	A2	20060420	WO 2005-IL1075	20051011
WO 2006040764	A3	20060706		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
AU 2005293147 A1 20060420 AU 2005-293147 20051011
CA 2583691 A1 20060420 CA 2005-2583691 20051011
EP 1799813 A2 20070627 EP 2005-796809 20051011
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU
JP 2008515454 T 20080515 JP 2007-536345 20051011
MX 200704414 A 20070925 MX 2007-4414 20070412
KR 2007085291 A 20070827 KR 2007-709511 20070426
IN 2007CN02055 A 20070907 IN 2007-CN2055 20070514
PRAI US 2004-617646P P 20041013
WO 2005-IL1075 W 20051011
AB The present invention provides methods for prodn. of IgG1 and IgG4 antibodies in carrot cells for use in therapy. Recombinant antibodies were targeted to different organelles to achieve maximal expression levels and alternative glycosylation patterns. Antibodies produced using these methods have a higher binding affinity to antigens compared to corresponding antibodies produced in mammalian cell culture.
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 8 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2006:527172 CAPLUS
DN 145:118316
TI Transgenic pea, Arabidopsis thaliana expressing human granulocyte-macrophage colony stimulating factor
IN Wang, Biao; Wu, Tianlong
PA Shanghai Jiao Tong University, Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 9 pp.
CODEN: CNXXEV
DT Patent
LA Chinese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI CN 1778932	A	20060531	CN 2005-10030446	20051013
CN 1325652	C	20070711		

PRAI CN 2005-10030446 20051013

AB The invention relates to transgenic plant expressing human granulocyte-macrophage colony stimulating factor. The human granulocyte-macrophage colony stimulating factor (hGM-CSF) gene was cloned into plasmid pCAMBIA2300 or pCAMBIA3300 and transformed into Pisum sativum or Arabidopsis thaliana. The hGM-CSF gene has Lys-Asp-Glu-Leu (KDEL) endoplasmic reticulum targeting signal. Another recombinant expression vector with hGM-CSF gene has Ala-Phe-Val-Tyr (AFVY) storage vacuole targeting signal at its C-terminus.

L5 ANSWER 9 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2006:1230885 CAPLUS

DN 146:118109

TI Localization of green fluorescent protein fusions with the seven Arabidopsis vacuolar sorting receptors to prevacuolar compartments in tobacco BY-2 cells

AU Miao, Yansong; Yan, Pak Kan; Kim, Hyeran; Hwang, Inhwan; Jiang, Liwen

CS Department of Biology and Molecular Biotechnology Program, Chinese University of Hong Kong, Shatin, New Territories, Hong Kong, Peop. Rep. China

SO Plant Physiology (2006), 142(3), 945-962
CODEN: PLPHAY; ISSN: 0032-0889

PB American Society of Plant Biologists

DT Journal

LA English

AB We have previously demonstrated that vacuolar sorting receptor (VSR) proteins are concd. on prevacuolar compartments (PVCs) in plant cells. PVCs in tobacco (Nicotiana tabacum) BY-2 cells are multivesicular bodies (MVBs) as defined by VSR proteins and the BP-80 reporter, where the transmembrane domain (TMD) and cytoplasmic tail (CT) sequences of BP-80 are sufficient and specific for correct targeting of the reporter to PVCs. The genome of Arabidopsis (Arabidopsis thaliana) contains seven VSR proteins, but little is known about their individual subcellular localization and function. Here, we study the subcellular localization of the seven Arabidopsis VSR proteins (AtVSR1-7) based on the previously proven hypothesis that the TMD and CT sequences correctly target individual VSR to its final destination in transgenic tobacco BY-2 cells. Toward this goal, we have generated seven chimeric constructs contg. signal peptide (sp) linked to green fluorescent protein (GFP) and TMD/CT sequences (sp-GFP-TMD/CT) of the seven individual AtVSR. Transgenic tobacco BY-2 cell lines expressing

these seven sp-GFP-TMD-CT fusions all exhibited typical punctate signals colocalizing with VSR proteins by confocal immunofluorescence. In addn., wortmannin caused the GFP-marked prevacuolar organelles to form small vacuoles, and VSR antibodies labeled these enlarged MVBs in transgenic BY-2 cells. Wortmannin also caused VSR-marked PVCs to vacuolate in other cell types, including Arabidopsis, rice (Oryza sativa), pea (Pisum sativum), and mung bean (Vigna radiata). Therefore, the seven AtVSRs are localized to MVBs in tobacco BY-2 cells, and wortmannin-induced vacuolation of PVCs is a general response in plants.

RE.CNT 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 10 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2004:101310 CAPLUS
DN 140:140662
TI Method for enhancing the nutritive value of plant extract by reducing protease-mediated protein degradation
IN Michaud, Dominique; Rivard, Daniel; Anguenot, Raphaeel; Trepanier, Sonia; Vezina, Louis-Philippe; Brunelle, France
PA Universite Laval, Can.
SO PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004011657	A1	20040205	WO 2003-CA1146	20030729
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2492501	A1	20040205	CA 2003-2492501	20030729
AU 2003250692	A1	20040216	AU 2003-250692	20030729
EP 1525319	A1	20050427	EP 2003-771033	20030729
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003013015	A	20050705	BR 2003-13015	20030729
CN 1671849	A	20050921	CN 2003-818266	20030729

JP 2005534301 T 20051117 JP 2004-523703 20030729
NZ 538431 A 20060728 NZ 2003-538431 20030729
MX 2005001035 A 20050608 MX 2005-1035 20050125
US 20060156440 A1 20060713 US 2005-519845 20050804
PRAI US 2002-398783P P 20020729
WO 2003-CA1146 W 20030729
AB The present invention relates to a method for increasing the stability of endogenous proteins recovered from plant cells or plants using proteinase inhibitor. The preservation of endogenous proteins integrity of endogenous protein occurs by neutralizing proteolysis in crude exts., particularly by the use of genetic alteration of plant cells or plants that express recombinant protease inhibitors or altered activity of specific target proteases.
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 11 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2003:855966 CAPLUS
DN 139:349659
TI Recombinant antibody or fragment-expressing transgenic plants, plant cells or tissues acquire resistance against fungal plant diseases
IN Peschen, Dieter; Fischer, Rainer; Schillberg, Stefan; Liao, Yu-Cai; Dorfmueller, Simone
PA Fraunhofer-Gesellschaft zur Foerderung der Angewandten Forschung e.V., Germany
SO PCT Int. Appl., 95 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003089475	A2	20031030	WO 2003-EP3852	20030414
WO 2003089475	A3	20040603		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2482607 A1 20031030 CA 2003-2482607 20030414
AU 2003224073 A1 20031103 AU 2003-224073 20030414
EP 1497333 A2 20050119 EP 2003-720467 20030414
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
IN 2004CN02362 A 20070223 IN 2004-CN2362 20041019
US 20050244901 A1 20051103 US 2005-512184 20050510
PRAI EP 2002-8929 A 20020422
EP 2002-11807 A 20020528
WO 2003-EP3852 W 20030414
AB A method for the prodn. of fungus resistant transgenic plants, plant cells or plant tissue comprising the introduction of an Ab, rAb, rAb fragment or fusion or vector of the invention or the vectors of the compn. of the invention into the genome of a plant , plant cell or plant cell tissue and a transgenic plant cell comprising stably integrated into the genome a polynucleotide or vector of the invention or the vectors of the compn. of the invention.
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 12 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2002:257278 CAPLUS
DN 137:3126
TI Distribution and characterization of peroxisomes in Arabidopsis by visualization with GFP: dynamic morphology and actin-dependent movement
AU Mano, Shoji; Nakamori, Chihiro; Hayashi, Makoto; Kato, Akira; Kondo, Maki; Nishimura, Mikio
CS Department of Cell Biology, National Institute for Basic Biology, Okazaki, 444-8585, Japan
SO Plant and Cell Physiology (2002), 43(3), 331-341
CODEN: PCPHA5; ISSN: 0032-0781
PB Japanese Society of Plant Physiologists
DT Journal
LA English
AB Peroxisomes were visualized in living cells of various tissues in transgenic Arabidopsis by green fluorescent protein (GFP) through the addn. of the peroxisomal targeting signal 1 (PTS1) or PTS2. The observation using confocal laser scanning microscopy revealed that the GFP fluorescence signals were detected as spherical spots in all cells of two kinds of transgenic plants. Immunoelectron microscopic anal. using antibodies against the peroxisomal marker protein, catalase, showed the presence of GFP in peroxisomes, confirming that GFP was correctly transported into peroxisomes by PTS1 or PTS2 pathways. It has been also revealed that peroxisomes are motile organelles whose

movement might be caused by cytoplasmic flow. The movement of peroxisomes was more prominent in root cells than that in leaves, and divided into two categories: a relatively slow, random, vibrational movement and a rapid movement. Treatment with anti-actin and anti-tubulin drugs revealed that actin filaments involve in the rapid movement of peroxisomes. Moreover, abnormal large peroxisomes are present as clusters at the onset of germination, and these clusters disappear in a few days. Interestingly, tubular peroxisomes were also obsd. in the hypocotyl. These findings indicate that the shape, size, no. and movement of peroxisomes in living cells are dynamic and changeable rather than uniform.

RE.CNT 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 13 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2002:325149 CAPLUS

DN 138:12646

TI Immunolocalization of 1-O-sinapoylglucose:malate sinapoyltransferase in Arabidopsis thaliana

AU Hause, Bettina; Meyer, Knut; Viitanen, Paul V.; Chapple, Clint; Strack, Dieter

CS Abteilung Sekundaerstoffwechsel, Institut fuer Pflanzenbiochemie, Halle (Saale), 06120, Germany

SO Planta (2002), 215(1), 26-32
CODEN: PLANAB; ISSN: 0032-0935

PB Springer-Verlag

DT Journal

LA English

AB The serine carboxypeptidase-like protein 1-O-sinapoylglucose:malate sinapoyltransferase (SMT) catalyzes the transfer of the sinapoyl moiety of 1-O-sinapoylglucose to malate in the formation of sinapoylmalate in some members of the Brassicaceae. Rabbit polyclonal monospecific antibodies were raised against the recombinant SMT produced in Escherichia coli from the corresponding Arabidopsis thaliana (L.) Heynh. cDNA. Immunoblot anal. of protein from different Arabidopsis tissues showed that the SMT is produced in all plant organs, except in the seeds and young seedlings. The enzyme was most abundant in older seedlings as well as in rosette leaves and the flowering stem of the plant. Minor amts. were found in the cauline leaves, flower buds and siliques. Traces were detected in the root and flowers. Arabidopsis and transgenic tobacco (Nicotiana tabacum L.) plants expressing the full-length Arabidopsis SMT contg. an N-terminal signal peptide showed apparent mol. masses of the protein of 52-55 kDa. The difference of ca. 8 kDa compared to the recombinant protein produced in E. coli was shown to be due to post-translational N-glycosylation of SMT in plants. Immunofluorescent labeling of Arabidopsis leaf

sections localized SMT to the central vacuoles of mesophyll and epidermal cells. Comparable leaf sections of an SMT deletion mutant showed no vacuolar immunofluorescent labeling. We conclude that Arabidopsis SMT is synthesized as a precursor protein that is targeted to the endoplasmic reticulum where the signal peptide is removed. The correct N-terminus of the recombinantly produced SMT protein lacking the signal peptide was confirmed by Edman degrdn. The protein is probably glycosylated in the Golgi app. from where it is subsequently routed to the vacuole.

RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 14 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2000:68484 CAPLUS

DN 132:133190

TI Use of vacuole targeting peptides to direct plant-toxic proteins to plant vacuoles and to create pest-resistant transgenic plants

IN Phung, Margaret Mary; Christeller, John Tane; Sutherland, Paul William; Murray, Colleen; Markwick, Ngaire Patricia; Philip, Bruce Allan; Malone, Louise Anne; Burgess, Elisabeth Phyllis June

PA Horticulture and Food Research Institute of New Zealand Limited, N. Z.; Phung, Thai Hong

SO PCT Int. Appl., 111 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000004049	A1	20000127	WO 1999-NZ110	19990715
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2335093	A1	20000127	CA 1999-2335093	19990715
AU 9948078	A	20000207	AU 1999-48078	19990715
AU 770211	B2	20040219		
BR 9912814	A	20010502	BR 1999-12814	19990715
NZ 505532	A	20020927	NZ 1999-505532	19990715
ZA 2000007677	A	20010608	ZA 2000-7677	20001220

US 6972350 B1 20051206 US 2001-743690 20010511
US 20050172356 A1 20050804 US 2005-93776 20050329
IN 2005DN03946 A 20070831 IN 2005-DN3946 20050902
US 20080235822 A1 20080925 US 2006-614920 20061221
PRAI NZ 1998-331002 A 19980715
WO 1999-NZ110 W 19990715
IN 2001-DN25 A3 20010112
US 2001-743690 A1 20010511
US 2005-93776 B1 20050329
AB This invention relates to chimeric polypeptides comprising vacuole targeting sequences and plant-noxious sequences and esp. pest control proteins. The polypeptides are useful in methods for targeting non-vacuolar harmful proteins to plant vacuoles. Chimeric polypeptides of the invention contg. pest control proteins are useful for conferring pest resistance on plants and in the prodn. of compns. useful as pesticides. The methods and compns. form further aspects of the invention. Thus, chimeric genes encoding potato proteinase inhibitor I (PPI-I) signal peptide fused to avidin or PPI-II signal peptide fused to streptavidin were expressed in tobacco. A variety of pest larvae were killed when they ingested transgenic tobacco. There was a synergistic pesticidal effect when a Cry toxin was ingested along with the avidin-contg. tobacco. Significant mortality of desirable insects such as honeybees was not obsd.
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 15 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1999:811344 CAPLUS
DN 132:45822
TI Methods and means for expression of mammalian polypeptides in monocotyledonous plants
IN Christou, Paul; Stroger, Eva; Fischer, Rainer; Martin-Vaquero, Carmen; Schillberg, Stefan; Ma, Julian K. C.
PA John Innes Centre, UK
SO PCT Int. Appl., 77 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9966026	A2	19991223	WO 1999-US13584	19990615
WO 9966026	A3	20000127		

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,

DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2330933 A1 19991223 CA 1999-2330933 19990615
BR 9911270 A 20010313 BR 1999-11270 19990615
EP 1088061 A2 20010404 EP 1999-928717 19990615
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
US 20020078472 A1 20020620 US 1999-333527 19990615
MX 2000012520 A 20020508 MX 2000-12520 20001215
US 20030051275 A1 20030313 US 2002-127427 20020423

PRAI US 1998-89322P P 19980615
US 1999-333527 B1 19990615
WO 1999-US13584 W 19990615

AB Rice, wheat, and other monocotyledonous plants are transformed with expression cassettes for prodn. of mammalian polypeptides, such as antibodies. Endoplasmic reticulum (ER) retention signals, 5'-untranslated regions, and leader peptides are employed in various combinations to provide high expression yield. Multi-chain complexes such as four-chain secretory antibodies are produced by expression of component polypeptides from sep. vectors all introduced into the same cell by transformation.

L5 ANSWER 16 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1999:421782 CAPLUS
DN 131:54741
TI Herbicide binding proteins and transgenic plants containing them
IN Holt, David Charles; Jones, Paul Glyn
PA Zeneca Limited, UK
SO PCT Int. Appl., 60 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9932630	A1	19990701	WO 1998-GB3760	19981215

PI
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW

RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9915706 A 19990712 AU 1999-15706 19981215

EP 1042478 A1 20001011 EP 1998-960019 19981215

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

PRAI GB 1997-26955 A 19971219

WO 1998-GB3760 W 19981215

AB The present invention relates to transgenic plants which exhibit substantial resistance/tolerance to herbicides. Provided are chimeric herbicide-binding proteins comprising variable regions of PQXB1/2 antibody heavy and light chains. The method of prodn. of such plants involves the use of herbicide binding proteins to sequester the herbicide, for example at the cell surface or in the vacuoles of a treated plant. Sequestration at the cell surface prevents the entry of the herbicide into the cell so that the herbicide cannot reach its intracellular target and exert any significant cytotoxic effect. Similarly, sequestration in the vacuole effectively removes the herbicide from its target site. The invention offers the further advantage of inhibiting the mobility of the herbicide from the application site to the whole plant, therefore preventing the herbicide from reaching particularly sensitive organs.

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 17 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1999:127028 CAPLUS

DN 130:178396

TI Pectate lyase and its cDNA sequence from Zinnia elegans

IN Roberts, Keith; Domingo Carrasco, Concepcion

PA Plant Bioscience Limited, UK

SO PCT Int. Appl., 68 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9907857	A1	19990218	WO 1998-GB2350	19980805

PI

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,

UA, UG, US, UZ, VN, YU, ZW
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
AU 9886390 A 19990301 AU 1998-86390 19980805
PRAI GB 1997-16766 A 19970807
WO 1998-GB2350 W 19980805
AB Disclosed are nucleic acids encoding pectate lyases from plant somatic cells (e.g. Zinnia elegans cv. Envy) and their promoters. The complete cDNA sequence corresponds to a translated protein of 44 kDa with an N-terminal signal peptide of about 2 kDa, and one potential N-glycosylation site. Northern anal. confirms that strong expression of this gene during tracheary element induction occurs at a very early stage of the process and is due solely to the presence of auxin in the induction medium. In situ hybridization studies in young Zinnia stems shows that the pectate lyase expression is assocd. with vascular bundles and shoot primordia. Also disclosed are variant nucleic acids (e.g. alleles, homologs, derivs.) and methods and materials for obtaining the same, e.g. based on probing or PCR. Vectors, host cells, transgenic plants and parts and progeny thereof having altered pectate lyase activity are also disclosed, as are methods and materials for obtaining them. The invention also embraces pectate lyases themselves and antibodies specific for them, plus also altered pectins and other polygalacturonate-contg. substrates.
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 18 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1998:151872 CAPLUS
DN 128:266753
OREF 128:52695a,52698a
TI Correct targeting of a vacuolar tobacco chitinase in Saccharomyces cerevisiae - post-translational modifications are dependent on the host strain
AU Kunze, Irene; Nilsson, Cecilia; Adler, Klaus; Manteuffel, Renate; Horstmann, Christian; Broker, Michael; Kunze, Gotthard
CS Institut fur Pflanzengenetik und Kulturpflanzenforschung, Gattersleben, D-06466, Germany
SO Biochimica et Biophysica Acta, Gene Structure and Expression (1998), 1395(3), 329-344
CODEN: BBGSD5; ISSN: 0167-4781
PB Elsevier B.V.
DT Journal
LA English
AB The chitinase gene FB7-1 of Nicotiana tabacum cv. samsun line 5 was

expressed in the two Saccharomyces cerevisiae strains, INVSC2 and H4, under the control of the GAL1 promoter from S. cerevisiae and a multicopy plasmid vector. Both yeast trains express the plant gene as enzymic active proteins. In transformants of the strain INVSC2, 94% of the total plant chitinase is contained inside the cells, probably within the vacuole which has been confirmed by subcellular fractionation as well as immunohistochem. expts. This retention inside the cells is due to the C-terminally located 7 amino acids long vacuolar targeting peptide of the prochitinase. When this sequence was removed, chitinase was transported into the culture medium. Pulse-chase expts. revealed that during translation in transformants of both yeast strains one chitinase polypeptide can be immunoadsorbed with specific antibodies. In the case of INVSC2-transformants, newly formed chitinase is modified in a 60 min chase to slightly increase its mol. mass, whereas in H4-transformants the mol. bass constantly remained 32 kDa. By Western blot anal., two chitinase corresponding polypeptides of 32 and 37 kDa were accumulated in the culture medium of both transformants carrying the chitinase gene without the vacuolar targeting sequence. The larger one was very likely O-glycosylated. Whereas, both polypeptides were also detected in cell exts. of the H4-transformant, only the smaller one was found in the INVSC2-transformant. The plant chitinase passed through the endoplasmic reticulum on its way to the vacuole. The N-terminal signal peptide responsible for the uptake into the endoplasmic reticulum is cleaved correctly. However, cleavage of the vacuolar targeting peptide located at the C-terminus, to give the mature chitinase is obviously influenced by the genetic background of the host strain. In INVSC2-transformants chitinase accumulates in its mature form whereas both the polypeptides of H4-transformants retain their vacuolar targeting peptide. Our results demonstrate that in the case of plant class I chitinase, the plant sorting signal is recognized in yeast cells but post-translational modifications are influenced by the host strain.

RE.CNT 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 19 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1994:474851 CAPLUS
DN 121:74851
OREF 121:13259a,13262a
TI cDNA cloning of carrot (Daucus carota) soluble acid .beta.-fructofuranosidases and comparison with the cell wall isoenzyme
AU Unger, Christoph; Hardegger, Markus; Lienhard, Susanne; Sturm, Arnd
CS Friedrich Miescher-Inst., Basel, CH-4002, Switz.
SO Plant Physiology (1994), 104(4), 1351-7

CODEN: PLPHAY; ISSN: 0032-0889
DT Journal
LA English
AB Carrot (Daucus carota), like other plants, contains various isoenzymes of acid .beta.-fructofuranosidase (.beta.F) (invertase), which either accumulate as sol. polypeptides in the vacuole (isoenzymes I and II) or are ionically bound to the cell wall (extracellular .beta.F). Using antibodies against isoenzyme I of carrot sol. .beta.F, the authors isolated several cDNA clones encoding polypeptides with sequence characteristic of .beta.Fs, from bacteria, yeast, and plants. The cDNA-derived polypeptide of one of the clones contains all partial peptide sequences of the purified isoenzyme I and thus codes for sol. acid .beta.Ff isoenzyme I. A second clone codes for a related polypeptide (63% identity and 77% similarity) with characteristics of isoenzyme II. These two sol. .beta.Fs, have acidic isoelec. points (3.8 and 5.7, resp.) clearly differing from the extracellular enzyme, which has a basic isoelec. point of 9.9. Marked differences among the three nucleotide sequences as well as different hybridization patterns on genomic DNA gel blots prove that these three isoenzymes of carrot acid .beta.F are encoded by different genes and do not originate from differential splicing of a common gene, as it is the case in the yeast Saccharomyces cerevisiae. All three carrot acid .beta.Fs, are preproenzymes with signal peptides and N-terminal propeptides. A comparison of the sequences of the sol. enzymes with the sequence of extracellular protein identified C-terminal extensions with short hydrophobic amino acid stretches that may contain the information for vacuolar targeting.

L5 ANSWER 20 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1992:189131 CAPLUS
DN 116:189131
OREF 116:31886h,31887a
TI Novel signal sequences for targetting of heterologous proteins to plant vacuoles
IN Boller, Thomas; Neuhaus, Jean Marc; Ryals, John
PA Ciba-Geigy A.-G., Switz.; Syngenta Participations AG
SO Eur. Pat. Appl., 81 pp.
CODEN: EPXXDW
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 462065	A2	19911218	EP 1991-810430	19910606
EP 462065	A3	19920520		
EP 462065	B1	20050302		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE
AT 290087 T 20050315 AT 1991-810430 19910606
ES 2235150 T3 20050701 ES 1991-810430 19910606
CA 2044476 A1 19911216 CA 1991-2044476 19910613
AU 9178415 A 19911219 AU 1991-78415 19910614
AU 653526 B2 19941006
BR 9102461 A 19920121 BR 1991-2461 19910614
HU 58758 A2 19920330 HU 1991-1994 19910614
PT 97965 B 20040227 PT 1991-97965 19910614
JP 04229182 A 19920818 JP 1991-170549 19910615
JP 2003180354 A 20030702 JP 2003-2513 19910615
US 6054637 A 20000425 US 1994-329799 19941026
PRAI CH 1990-2007 A 19900615
US 1991-715521 B1 19910614
JP 1991-170549 A3 19910615
AB Peptides responsible for targetting proteins to plant vacuoles and DNA sequences encoding them are described for use in plant genetic engineering. The peptides are from the C-terminal regions of chitinases and glucanases. A cDNA for tobacco chitinase was cloned by antibody screening of an expression bank and the corresponding genomic sequence was cloned using this sequence as a probe. A corresponding cDNA for the pathogen- induced chitinase of cucumber was cloned by screening with amino acid sequence- derived oligonucleotide probes. A series of deletion analogs of the cDNAs were prepd. and introduced into tobacco callus. The cellular localization of the various derivs. in regenerated plants was detd.

L5 ANSWER 21 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1992:484414 CAPLUS
DN 117:84414
OREF 117:14595a,14598a
TI Nucleotide sequence of cDNA coding for dianthin 30, a ribosome inactivating protein from Dianthus caryophyllus
AU Legname, Giuseppe; Bellosta, Paola; Gromo, Gianni; Modena, Daniela; Keen, Jeff N.; Roberts, Lynne M.; Lord, J. Michael
CS Dep. Biol. Sci., University of Warwick, Coventry, CV4 7AL, UK
SO Biochimica et Biophysica Acta, Gene Structure and Expression (1991), 1090(1), 119-22
CODEN: BBGSD5; ISSN: 0167-4781
DT Journal
LA English
AB Rabbit antibodies raised against dianthin 30, a ribosome inactivating protein from carnation (D. caryophyllus) leaves, were used to identify a full length dianthin precursor cDNA clone from a .lambda.gt11 expression library. N-terminal amino acid sequencing of purified dianthin 30 and dianthin 32 confirmed that the clone encoded dianthin 30. The cDNA

was 1153 base pairs in length and encoded a precursor protein of 293 amino acids residues. The first 23 N-terminal amino acids of the precursor represented the signal sequence. The protein contained a carboxy-terminal region which, by analogy with barley lectin, may contain a vacuolar targeting signal.

L5 ANSWER 22 OF 22 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1989:571187 CAPLUS
DN 111:171187
OREF 111:28440h,28441a
TI Transport of proteins to the plant vacuole is not by bulk flow through the secretory system, and requires positive sorting information
AU Dorel, Corinne; Voelker, Toni A.; Herman, Eliot M.; Chrispeels, Maarten J.
CS Cent. Mol. Genet., Univ. California, San Diego, CA, 92093-0116, USA
SO Journal of Cell Biology (1989), 108(2), 327-37
CODEN: JCLBA3; ISSN: 0021-9525
DT Journal
LA English
AB Plant cells, like other eukaryotic cells, use the secretory pathway to target proteins to the vacuolar/lysosomal compartment and to the extracellular space. To det. whether the presence of a hydrophobic signal peptide would result in the transport of a reporter protein to vacuoles by bulk flow, a chimeric gene was expressed in transgenic tobacco. The chimeric gene, Phalb, used for this study consists of the 1188-base pair 5' upstream sequence and the hydrophobic signal sequence of a vacuolar seed protein phytohemagglutinin, and the coding sequence of a cytosolic seed albumin (PA2). The chimeric protein PHALB cross-reacted with antibodies to PA2 and was found in the seeds of the transgenic plants (.apprx.0.7% of total protein), but not in the leaves, roots, or flowers. Immunoblot analyses of seed exts. revealed 4 glycosylated polypeptides ranging in mol. wt. from 29,000 to 32,000. The 4 polypeptides are glycoforms of a single polypeptide of Mr 27,000, and the heterogeneity is due to the presence of high mannose and endoglycosidase H-resistant glycans. The PHALB products reacted with an antiserum specific for complex plant glycans indicating that the glycans had been modified in the Golgi app. Subcellular fractionation of glycerol exts. of mature seeds showed that only small amts. of PHALB accumulated in the protein storage vacuoles of the tobacco seeds. In homogenates made in an isotonic medium, very little PHALB was assocd. with the organelle fraction contg. the endoplasmic reticulum and Golgi app.; most of it was in the sol. fraction. Apparently, PHALB passed through the Golgi app., but did not arrive in the vacuoles. Transport to vacuoles is not by a bulk-flow mechanism, once proteins have entered the secretory system, and requires information

beyond that provided by a hydrophobic signal peptide.